

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

Claim 14 is currently cancelled.

Claims 1-3, 5-9 and 11-13 are currently being amended.

Claims 15-19 are currently being added.

This amendment and reply adds, cancels and amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After adding, canceling and amending the claims as set forth above, claims 1-13 and 15-19 are now pending in this application.

Claim Rejections – Non-Statutory Subject Matter:

In the Office Action, claims 1-6, 13 and 14 were rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter, for the reasons set forth on pages 2-6 of the Office Action. In reply, claims 1-3, 5-9 and 11-13 have been amended so that those claims recite statutory subject matter based on current U.S. case law. In particular, the method claims are now clearly tied to a particular machine or apparatus, whereby the plurality of computers making up the computer cluster are coupled via a communication device, and also in which a memory capacity of each computer making up the computer cluster is not enough to store whole matrices used in Hartree-Fock calculation. Thus, there is clear patentable utility in the presently pending claims as well.

Also, please note that claim 13 is now directed to a computer readable storage medium, while claim 14 has been canceled to thereby moot the rejection of that claim.

Claim Rejections – Indefiniteness:

In the Office Action, claims 8-12 and 14 were rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite, for the reasons set forth on pages 7 and 8 of the Office Action. Claims 8-12 have been amended based on the comments made on pages 7 and 8 of the Office Action (i.e., to further limit the apparatus), whereby those claims are believed to fully comply with 35 U.S.C. § 112, 2nd paragraph. Claim 14 has been canceled, thereby making the “indefiniteness” rejection of that claim moot.

New Claims:

New claims 15-19 have been added to recite additional “patentable utility” features. Please note that new independent claim 19 recites that each of the computers performs the executing step, and that, in the computing step, there are obtained ‘precise simulations of structures and physical properties of molecules, and chemical bonds, molecular orbitals and electron states in molecules.’ Also, claim 19 recites that ‘no high-performance computers are included in the multiple computers making up the computer cluster’, to thereby clearly recite utility for the claimed invention.

Conclusion:

Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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